REMARKS

This is responsive to the Office Action of May 03, 2005 to which response is due by September 03, 2005.

Applicant has amended Claim 1 to correct certain grammatical errors. Applicant has added new Claim 13.

The Office Action, Paragraphs 3 and 6, rejects Claims 1-4 and 10 under 35 USC 102(a) and 103(a) in view of ASICS Spring 2002 Footwear Catalog. This reference has a publication date of *May 16, 2001.* Applicant respectfully requests that this rejection be withdrawn.

Applicant herein claims priority of Japanese Application 2001-141157 filed on May 11, 2001. This priority is clearly claimed in the application papers filed herein (see Declaration and Power of Attorney, Preliminary Amendment dated February 14, 2004) as well as in the parent application which issued as US Patent No. 6,789,333 (see attached Bibliographic Information- **Exhibit A**). Certified copies of this Japanese application are of record in the parent application. Thus, the effective filing for this application is May 11, 2001, prior to the date of the cited reference. Thus, the 35 USC 102(a) and 103(a) rejections are improper and should be withdrawn.

The Office Action, Paragraphs 2 and 5, rejects Claims 1,2 and 4 under 35 USC 102(b) and 103(a) over US Patent No. 5,782,014 to ***Peterson***. Applicant traverses this rejection. Additionally, Applicant has added Claim 13 which is clearly distinguishable from ***Peterson***.

Peterson does not teach or suggest a plurality of helically formed grooves around a vertical axis on an outer peripheral surface of the cushioning element smaller than a range of 180 degrees around the axial line. Such limitation is in all of Applicant's pending claims.

Referring to **Exhibit B,** which is a copy of **Fig. 4** of ***Peterson*** with Applicant's notations thereon, ***Peterson*** states with respect to this aspect of his invention:

> *FIG. 4 depicts an alternate configuration of a projection of the cushioning assembly of the present invention....*(Col.2, 57-58).
>
> *Referring now to FIG. 4, an alternate form of the projections of the present invention is shown. In the arrangement of FIG. 4, a helical or screw like projection 14 is provided, to further enhance the ability of the projections to absorb impact forces and dissipate energy.* (Col.4, lines 26-29)
>
> *Claim 1. An athletic shoe comprising:*
> *a sole assembly having a pocket;*

a midsole cushioning assembly disposed in said pocket, said midsole cushioning assembly including a modulator portion and a plurality of spaced projections extending from said modulator portion such that adjacent projections are spaced from one another

.....wherein said projections are spaced to have at least one of: (a) a spacing between adjacent projections of at least 4 mm, and (b) a spacing between centers of adjacent projections of at least 14 mm.

9. An athletic shoe as recited in claim 1, wherein said projections include a helical recess extending about an outer surface thereof.

Taking into consideration **Fig. 4**, the other figures of ***Peterson*** and the above cited description (in particular the use of the term *helical*), it is clear that the vertical direction in **Fig.4** of ***Peterson*** is D1 and faces S1, S2 are the outer peripheral surfaces of the projection, T is the top surface and B is the bottom surface.

As depicted in **Fig. 4 (Exhibit B)** the *recess* or groove 401 of ***Peterson*** is formed on the outer peripheral surface of the column-shaped projection 14, *helically* or like a screw, encircling the projection with a single groove. This encirclement is more than 180 degrees around the axis line. This is clearly shown in that the *recess* 401 appears on the sides S1 and S2. This indicates an encirclement greater than 180 degrees.

Additionally, as shown in attached Fig.4, the lead angle θ (theta) is about 30 degrees, which is smaller than 35 degrees required by Claim 2

Thus, ***Peterson*** does not disclose *a plurality of* grooves, an encirclement of *less than 180 degrees* as found in Applicant's Claim 1 and those claims dependant thereon. Additionally, ***Peterson*** does not disclose the limitation of Claim 2 wherein the lead angle between the groove and a horizontal plane is set within a range of 35 degrees to 60 degrees.

These specific limitations provide an unexpected benefit. As stated in paragraph [0007] of the present application, when a compression load is applied in a vertical direction to the cushioning portion, a rotating force is applied to the cushioning portion twisting the cushioning portion around the vertical axial line. Thus, shear deformation along the horizontal plane perpendicular to the axial line is generated inside of the cushioning portion. This shear deformation has a cushioning function (i.e. an absorption of energy) much greater than normal compression deformation. In the case where the cushioning element is required to be thin, e.g., the ball of the foot, the cushioning function due

to shear deformation is greater and more effective than the cushioning function created by compression thereon. Additionally, where the lead angle θ (theta) is set within the range of Claim 2, since the projection between the grooves is deformed in such a manner that it largely "falls", the cushioning performance becomes high, see paragraph [0016] of the present application.

Peterson does not teach or suggest new Claim 13. Claim 13 requires that the cushioning structure of Claim 1 is *fitted within the cavity of the midsole body.* The ***Peterson*** projections, i.e., 14 or 12, are described as *"spaced projections"* throughout the specification, e.g., see Figs. 1 and 2 and the following statements:

> *It is another object of the invention to provide an athletic shoe having a midsole which includes a cushioning unit having a modulator member with a plurality of projections extending therefrom, with the projections spaced with respect to one another so that the interaction between the projections and the modulator provide a spring cushioning arrangement which stably dampens impact forces.* (Col.1, lines53-58)
>
> *In a preferred embodiment, the midsole of the shoe includes ....and the spring foam assembly includes a midsole unit ... with a plurality of spaced projections provided in the forefoot and heel regions, while the center region of the midsole unit is substantially flat.* (Col. 2, lines 3-10)
>
> *Moreover, by utilizing spaced projections which interact with the modulator independently, a stable cushioning effect is obtained.* (Col. Col. 2, lines 27-30)
>
> *As also shown in FIG. 1, the midsole unit 8 includes a modulator portion 8a having a substantial thickness, so that the midsole unit is able to support spaced, independent projections...* (Col. 3, lines 14-18).
>
> *However, this thickness of the modulator portion has been found advantageous in combination with spaced projections so that the projections substantially independently interact with the modulator to provide a stable spring form cushioned midsole assembly.* (Col. 3, lines 23-27).
>
> *In the embodiment of the invention of FIGS. 1-3, the projections are in the shape of a truncated cone, and are sufficiently spaced so that the projections can act and interact independently with the modulator portion 8a, to provide a stable impact absorbing unit. By way of example, in a presently preferred form of the invention, the projections have a 10 mm diameter at the base (i.e., adjacent to the modulator), with a 5 mm diameter at the top of the projections (i.e., the portion of the projection remote from the modulator portion 8a). In addition, a center to center spacing distance of the projections can be, e.g., 14 mm (providing a base to base spacing of approximately 4 mm). Of course, the spacings and sizings may vary. In the FIG. 2A arrangement, the projections are arranged in staggered rows, to provide a stable distribution of forces over the regions which include*

projections. However, alternate patterns of projections are also possible. (Col. 3, lines 43-61).

Thus, ***Peterson*** does not teach or suggest projections (cushioning structures) that are fitted within the midsole but teaches projections that act independant of each other and are not *fitted within the midsole.*

For all of the foregoing reasons, Applicant respectfully asserts that all claims presented, i.e., Claims 1-4, 10 and 13 are allowable and requests that this application pass to issuance.

Respectfully Submitted,

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